

1 APPLICATION FOR UNITED STATES LETTERS PATENT

2 ON INVENTION FOR:

3 RENEWABLE SPONGE

4 BY INVENTOR: Tracy Strine

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6 Agt. Doc. No.: STRT20A

7 *****

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13 *****

14 TO ALL WHOM IT MAY CONCERN:

15 BE IT KNOWN that I, Tracy Strine, a citizen of THE
16 UNITED STATES OF AMERICA and resident of: Bayside, NY 11360
17 have invented certain new and useful improvements in a(n):
18 RENEWABLE SPONGE of which the following is a full, clear,
19 concise and exact description:

1 Inventor: Tracy Strine
2 Invention: RENEWABLE SPONGE
3 DOC. No.: STRT20A

4 BACKGROUND OF THE INVENTION

5 Field of the Invention:

6 The present invention relates to a sponge. More particularly, the
7 present invention relates to a renewable sponge.

8 Description of the Prior Art:

9 Numerous innovations for sponges have been provided in the prior art
10 that will be described. Even though these innovations may be suitable for
11 the specific individual purposes to which they address, however, they
12 differ from the present invention.

13 A FIRST EXAMPLE, U.S. Patent No. 4,866,806 to Bedford teaches a
14 multilayered foam scrub sponge for cleanup prior to a surgical procedure.
15 One layer serves to impart a degree of rigidity to the structure, another
16 layer retains an antiseptic solution, while a third layer acts as a
17 scrubbing surface. The sponge is shaped to fall easily to the human hand.
18 A toothed profile on the edges presents a rough surface for an augmented
19 scrubbing capability. A removable serrated insert accommodated in the
20 center of the sponge enable insertion of the fingers to cleanse and
21 disinfect the cuticle areas. Removal of the insert allows access to a
22 fingernail pick stored thereunder. The sponge is stored in a solution-
23 impregnated state within a sealed package ready for immediate use.

24 A SECOND EXAMPLE, U.S. Patent No. 5,507,906 to Woods et al. teaches
25 a method for manufacturing a laminated pad in a cost-efficient manner.
26 In one embodiment, the method comprises the steps of applying strips of
27 adhesive to a first substrate and mounting the first substrate to a second
28 substrate. Next, adhesive is applied to the entire width of a third

1 substrate which is in turn mounted to the laminated first and second
2 substrates to create a laminated sheet. The laminated sheet can be slit
3 and then die cut into individual laminated pads. The pads which result
4 from this process have a base pad, an intermediate layer which is adhered
5 to the base pad and a top layer in which only a portion of the top layer
6 is mounted to the intermediate layer.

7 A THIRD EXAMPLE, U.S. Patent No. 5,640,737 to Boggs teaches a multi-
8 component sponge that has a central or main foam layer of reticulated
9 single cell polyurethane flexible foam and an outer foam layers adhered
10 to each of its two substantially parallel sides so that liquid can flow
11 between the main foam layer and the two outer foam layers. Each of the
12 two outer foam layers is preferably polyurethane flexible foam having a
13 reticulated double cell structure although each could be a reticulated
14 single cell structure having a porosity in the range of 3-110 pores per
15 inch. The main foam layer preferably has a porosity in the range of 3-30
16 pores per inch. Each of the two outer foam layers is softer than the main
17 foam layer.

18 A FOURTH EXAMPLE, U.S. Patent No. 5,836,034 to Galvan Garza teaches
19 a soft/abrasive sponge, and more specifically to a sponge of the type that
20 is used for cleaning any class of articles such as dishes, bathrooms,
21 tiles etc., which combines in one body of any geometric shape one section
22 of a soft surface, on the opposite section an extremely abrasive surface
23 and on its peripheral sides a plurality of projecting salients which make
24 up the rounded tips which provide the possibility to scrub places which
25 only are penetrated with great difficulty by any other type of sponge when
26 cleaning those areas.

27 A FIFTH EXAMPLE, U.S. Patent No. 6,485,822 B1 to Osiecki et al.
28 teaches a multi-layer combination sponge that includes a scrubbing layer
29 and a cleaning layer that are each laminated to an intermediate layer.
30 The intermediate layer is more compressible than the cleaning layer and
31 the scrubbing layer, and a groove is formed around a perimeter of the
32 sponge between the cleaning layer and the scrubbing layer. The layers are

1 preferably coextensive, forming a nose portion at the front of the
2 combination sponge and having rounded corners at the rear of the
3 combination sponge. The cleaning and intermediate layers each have an
4 approximately equal thickness, and the scrubbing layer has a thickness
5 less than one-half as thick as either the cleaning layer or the
6 intermediate layer.

7 A SIXTH EXAMPLE, U.S. Patent Application Publication No.
8 2003/0027496 A1 to Black et al. teaches a method and apparatus for
9 cleaning and shaping a probe tip using a multi-layer adhesive and abrasive
10 pad. The multi-layer adhesive and abrasive pad is constructed on the
11 surface of a support structure, such as a silicon wafer, and is made of
12 an adhesive in contact with abrasive particles. Adhesive is applied in
13 layers with abrasive particles in-between each layer of adhesive.
14 Abrasive particles may vary in size and material from layer to layer to
15 achieve cleaning, shaping and polishing objectives.

16 It is apparent that numerous innovations for sponges have been
17 provided in the prior art that are adapted to be used. Furthermore, even
18 though these innovations may be suitable for the specific individual
19 purposes to which they address, however, they would not be suitable for
20 the purposes of the present invention as heretofore described.

SUMMARY OF THE INVENTION

1
2 ACCORDINGLY, AN OBJECT of the present invention is to provide a
3 renewable sponge that avoids the disadvantages of the prior art.

4 ANOTHER OBJECT of the present invention is to provide a renewable
5 sponge that is simple to use.

6 BRIEFLY STATED, STILL ANOTHER OBJECT of the present invention is to
7 provide a renewable sponge. A body includes a non-abrasive layer and an
8 abrasive layer that overlies, and is attached to, the non-abrasive layer.
9 Each of the non-abrasive layer and the abrasive layer include a plurality
10 of peel-off layers that are substantially separated from each other by
11 strategically positioned slits so as to allow each of the plurality of
12 peel-off layers to be peeled off when exhausted and expose a next peel-off
13 layer so as to renew the renewable sponge. The strategically positioned
14 slits extend between adjacent ones of the plurality of peel-off layers
15 completely across the body, from one side of the body to the other side
16 of the body. The strategically positioned slits that are between adjacent
17 layers of the plurality of peel-off layers are separated from each other
18 by non-slitted portions of the body.

19 The novel features which are considered characteristic of the
20 present invention are set forth in the appended claims. The invention
21 itself, however, both as to its construction and its method of operation,
22 together with additional objects and advantages thereof, will be best
23 understood from the following description of the specific embodiments when
24 read and understood in connection with the accompanying drawing.

BRIEF DESCRIPTION OF THE DRAWING

1

2 The figures of the drawing are briefly described as follows:

3 FIGURE 1 is a diagrammatic perspective view of the present invention;

4 FIGURE 2 is an enlarged diagrammatic cross sectional view taken along
5 line 2-2 in figure 1; and

6 FIGURE 3 is an enlarged diagrammatic partial cross sectional view taken
7 along line 3-3 in figure 1.

LIST OF REFERENCE NUMERALS UTILIZED IN THE DRAWING

1

- | | | |
|----|----|--|
| 2 | 10 | renewable sponge of present invention |
| 3 | 11 | body |
| 4 | 12 | non-abrasive layer of body 11 |
| 5 | 14 | abrasive layer of body 11 |
| 6 | 16 | plurality of peel-off layers of each of non-abrasive layer 12 of |
| 7 | | body 11 and abrasive layer 14 of body 11 |
| 8 | 18 | strategically positioned slits in body 11 |
| 9 | 19 | one side of body 11 |
| 10 | 20 | non-slitted portions of body 11 |
| 11 | 21 | other side of body 11 |

1 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

2 Referring now to the figures, in which like numerals indicate like
3 parts, and particularly to figures 1-3, the renewable sponge of the
4 present invention is shown generally at 10.

5 The renewable sponge 10 comprises a body 11. The body 11 comprises
6 a non-abrasive layer 12 and an abrasive layer 14. The non-abrasive layer
7 12 of the body 11 overlies, and is attached to, the abrasive layer 14 of
8 the body 11.

9 Each of the non-abrasive layer 12 of the body 11 and the abrasive
10 layer 14 of the body 11 comprises a plurality of peel-off layers 16. The
11 plurality of peel-off layers 16 of the body 11 are substantially separated
12 from each other so as to allow each of the peel-off layers 16 of the body
13 11 to be peeled off when exhausted and expose a next peel-off layer 16 of
14 the body 11 so as to renew the renewable sponge 10.

15 The plurality of peel-off layers 16 of the body 11 are substantially
16 separated from each other by strategically positioned slits 18. The
17 strategically positioned slits 18 in the body 11 extend between adjacent
18 ones of the plurality of peel-off layers 16 of the body 11.

19 The strategically positioned slits 18 in the body 11 extend
20 completely across the body 11, from one side 19 of the body 11 to the
21 other side 21 of the body 11.

22 The strategically positioned slits 18 in the body 11 that are
23 between adjacent layers of the plurality of peel-off layers 16 of the body
24 11 are separated from each other by non-slitted portions 20 of the body
25 11, and since the strategically positioned slits 18 in the body 11 extend
26 completely across the body 11, from the one side 19 of the body 11 to the
27 other side 21 of the body 11, the non-slitted portions 20 of the body 11
28 are visible from the one side 19 of the body 11 and the other side 21 of
29 the body 11.

1 It will be understood that each of the elements described above, or
2 two or more together, may also find a useful application in other types
3 of constructions differing from the types described above.

4 While the invention has been illustrated and described as embodied
5 in a renewable sponge, however, it is not limited to the details shown,
6 since it will be understood that various omissions, modifications,
7 substitutions and changes in the forms and details of the device
8 illustrated and its operation can be made by those skilled in the art
9 without departing in any way from the spirit of the present invention.

10 Without further analysis, the foregoing will so fully reveal the
11 gist of the present invention that others can, by applying current
12 knowledge, readily adapt it for various applications without omitting
13 features that, from the standpoint of prior art, fairly constitute
14 characteristics of the generic or specific aspects of this invention.